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1565 MacArthur Blvd.  
Cost Mesa, CA 92626  
714.431.4100  
Fax 714.825.0685



March 4, 2003

Mr. Roger Baker  
City Planner  
CITY OF BURBANK  
275 East Olive Avenue  
Burbank, California 91502

Clayton Project No. 80-98191.01

Subject: Status Report of Vapor Extraction System Operation - Lockheed-Martin  
B-1 Site – October 31, 2002 through February 3, 2003

Dear Mr. Baker:

The following status report has been prepared by Clayton Group Services, Inc. (Clayton) for the Vapor Extraction System (VES) operation at Lockheed-Martin B-1 Site for the period between October 31, 2002 and February 3, 2003. It includes the following items:

- Background
- Clayton Field Activities
- Results of Laboratory Analysis
- Health Risk Assessment Calculations
- Conclusions

### **BACKGROUND**

Alton Geoscience conducted a "Phase I" and "Phase II" of VES effluent sampling and health risk assessment for the Lockheed-Martin B-1 facility. Phase I consisted of twelve weekly health risk reports based on samples collected between September 2, 1997 and February 9, 1998. Phase II included twelve bi-weekly health risk assessments based on samples collected between February 16, 1998 and September 9, 1998. Phase III consisted of monthly sampling between October and December 1998.

Mr. Roger Baker  
CITY OF BURBANK  
March 4, 2003

Page 2 of 5  
Clayton Project No. 80-98191.01

Phase IV of the VES effluent sampling consists of VES effluent sample acquisition, laboratory analyses, and health risk assessments to be performed once per quarter for the remainder of the project. The first and second quarterly health risk assessments were provided by Alton in reports dated January 18, 1999 and May 24, 1999, respectively.

Clayton subsequently has conducted quarterly sampling of the units and has routinely reported the results. These reports were issued as follows:

- November 23, 1999, which addressed the temporary shutdown of the system on October 14, 1999 for rebound testing;
- March 13, 2000, for the period following restart of the system;
- May 16, 2000 for the period through March 2000;
- March, July 12, 2000 for the period through June 2000;
- November 17, 2000, for the period through September 2000;
- February 22, 2001, for the period through January 2001;
- May 31, 2001, for the period through April 2001;
- August 21, 2001, for the period through August 5, 2001;
- November 12, 2001 for the period through October 19, 2001;
- March 29, 2002 for the period through January 28, 2002;
- June 6, 2002 for the period through April 29, 2002;
- August 23, 2002 for the period through July 26, 2002; and,
- January 8, 2003 for the period through October 30, 2003.

As a result of the rebound test that began on September 4, 2002 (initial shutdown) through the month of December, the VES was restarted on January 29, 2003. Based on rebound test results, Earth Tech personnel concluded that additional vapor extraction is necessary. Duration of run time is pending future sampling results.

Mr. Roger Baker  
CITY OF BURBANK  
March 4, 2003

Page 3 of 5  
Clayton Project No. 80-98191.01

### **CLAYTON FIELD ACTIVITIES**

On February 3, 2003 personnel from Clayton met with Earth Tech personnel to conduct sampling of air emissions at the Lockheed-Martin B-1 Site VES. Clayton and Earth Tech personnel each collected an exhaust sample using an evacuated Summa canister, connected via a disposable Teflon® tube to the VES unit's sampling port.

During the sampling period, the exhaust flow rate was 1,680 scfm. The two stack analyzers monitoring volatile organic compound (VOC) concentration showed good correlation with readings of 0.59 and 0.54 ppm. The VOC emission rate readings were within acceptable operating conditions for the VES. The 15-minute average VOC emission rate indicated at the time was 0.7200 lbs/day, while the 24-hour average was .6539 lbs/day. These values were in good agreement with the calculated value of 0.636 lb/day based on the analytical data.

The sample collected by Clayton was delivered to Air Toxics Ltd. in Folsom, California under chain of custody control for analysis by gas-chromatograph/mass spectrometry (GS/MS) in accordance with EPA Method TO-15.

### **RESULTS OF LABORATORY ANALYSES**

The results from the TO-15 analysis of the sample taken on February 3, 2003 indicated that nine (9) compounds were present in concentrations above detection limits. Following are a list of these compounds and the concentrations indicated by the analysis:

<b>Compound</b>	<b>Concentration (ppmv)<sup>1</sup></b>
Chloroform	0.002
1,1-Dichloroethene (DCE)	0.0087
Cis-1,2-Dichloroethene	0.0018
Freon 11 (Trichlorofluoromethane)	0.001
Freon 12 (Dichlorodifluoromethane)	0.018
Freon 113 (1,1,2-Trichloro- 1,2,2-trifluoro- ethane)	0.011
1,1,1- Trichloroethane	0.003
Trichloroethene (TCE)	0.410
Tetrachloroethene (Perchloroethylene or PCE))	0.250

1 ppmv = parts per million by volume

Mr. Roger Baker  
CITY OF BURBANK  
March 4, 2003

Page 4 of 5  
Clayton Project No. 80-98191.01

These results reflect a slight increase in the total VOC concentration but with a decrease in the number of constituents detected. Overall the total VOC concentration range remains at low levels relative to the historical trend.

Using the analytical data, an overall VOC emission rate of 0.636 lb/day was calculated. This figure is consistent with the 24 hour average VOC reading provided by the organic vapor monitoring system. However, the calculated VOC emission levels are well below the Conditional Use Permit (CUP) limit of 9.8 pounds per day. These results, along with the previous calculated total VOC emissions for the unit, were plotted on Figure 1. Vinyl chloride was not detected in the sample taken. Therefore, its CUP limit of 0.14 pounds per day was not exceeded.

### **HEALTH RISK ASSESSMENT CALCULATIONS**

In accordance with the CUP, the stack concentrations of each constituent and the exhaust flow rates were used to calculate the excess cancer risk resulting from operation of the VES. The first risk calculation was to determine the risk if the unit was operated for a lifetime period of 70 years, evaluating the risk to both workers and local residents for those chemicals specified in SCAQMD Rule 1401, as adopted at the time the unit was permitted. The second risk calculation was to determine the risk to both workers and local residents for the life of the project (the 8.5 year operating period), for all detected chemicals for which carcinogenic risk factors are available.

The resulting cancer risk calculations for both conditions indicated an acceptable Maximum Individual Cancer Risk (MICR) significantly less than one in one million. The results from these calculations, along with the MICR results from previous calculations for the unit, are presented on Figures 2 and 3, for 70 year and 8.5 year calculations respectively.

### **CONCLUSIONS**

Based on the results of the information gathered and samples taken on February 3, 2003, the following conclusions can be made:

- The current result of 0.636 lbs/day is evidence that rebound has occurred. Although the overall VOC emission rate has not been this comparable since October of 2001, it remains well below the CUP limit 9.8 pounds per day. Evidently, the residual contaminants remaining in the subsurface are higher than previously expected resulting in additional VES operation.

Mr. Roger Baker  
CITY OF BURBANK  
March 4, 2003

Page 5 of 5  
Clayton Project No. 80-98191.01

- Since vinyl chloride was not detected, its CUP limit of 0.14 pounds per day was not exceeded. Excess cancer risks (MICR) were less than one in one million for workers and local residents, using both 70-year lifetime and 8.5-year operating period risk calculations.

If you have any questions or require additional information regarding this status report, please contact me at (714) 431-4157.

Sincerely,

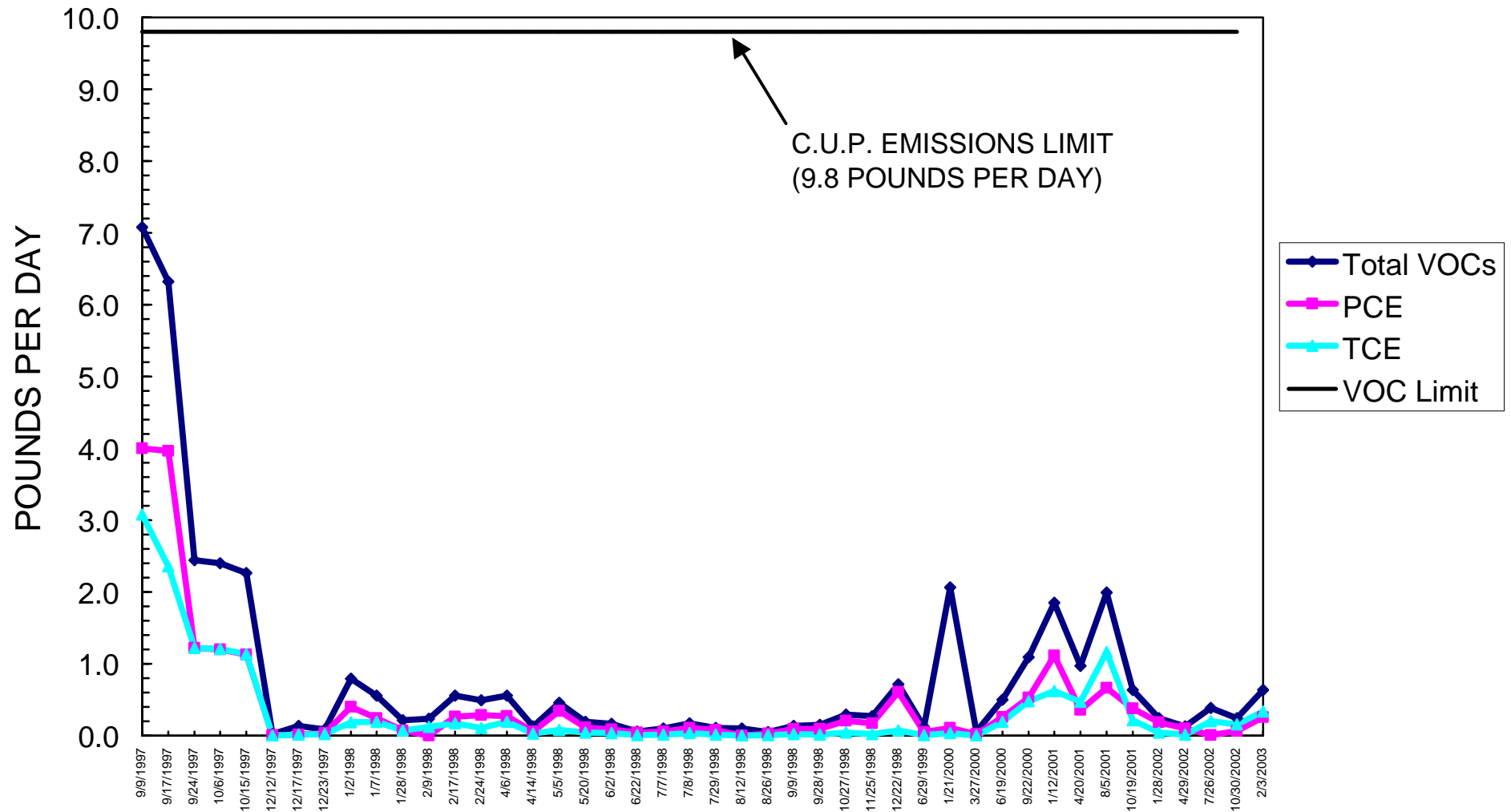
A handwritten signature in dark ink that reads 'Martin L. McClintock'.

Martin L. McClintock, P.E. No. 5025  
Project Engineer  
Environmental Services

Attachments: Figure 1 - Daily VOC Emissions  
Figure 2 - Human Health Risk (70 Year Lifetime)  
Figure 3 - Human Health Risk (8.5 Year Operating Period)  
Laboratory Report

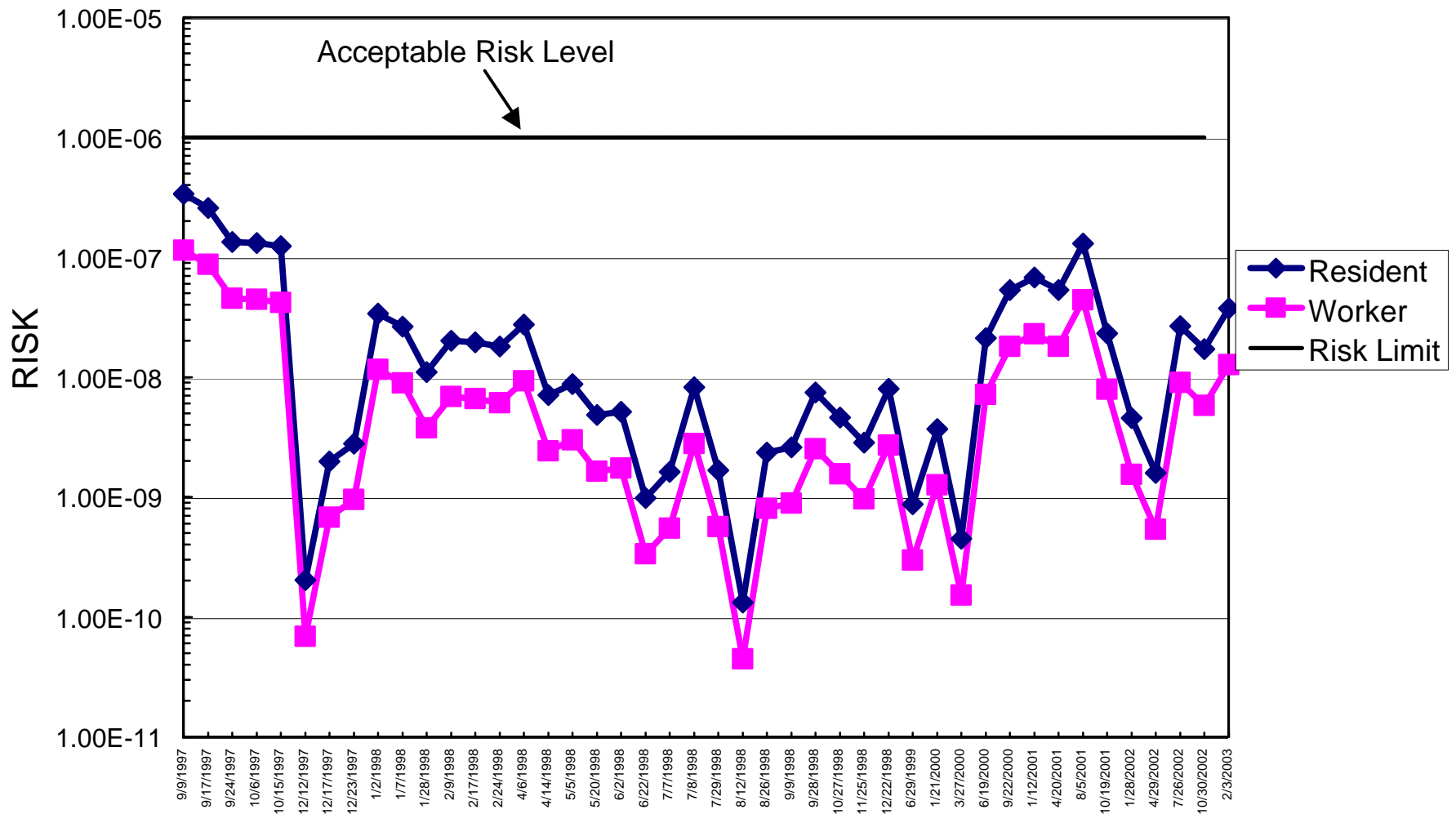
cc: Ms. Stacey Ebner, South Coast Air Quality Management District

**FIGURE 1 - DAILY VOC EMISSIONS**  
**LOCKHEED B-1 VES**  
**Independent Monitoring Data**



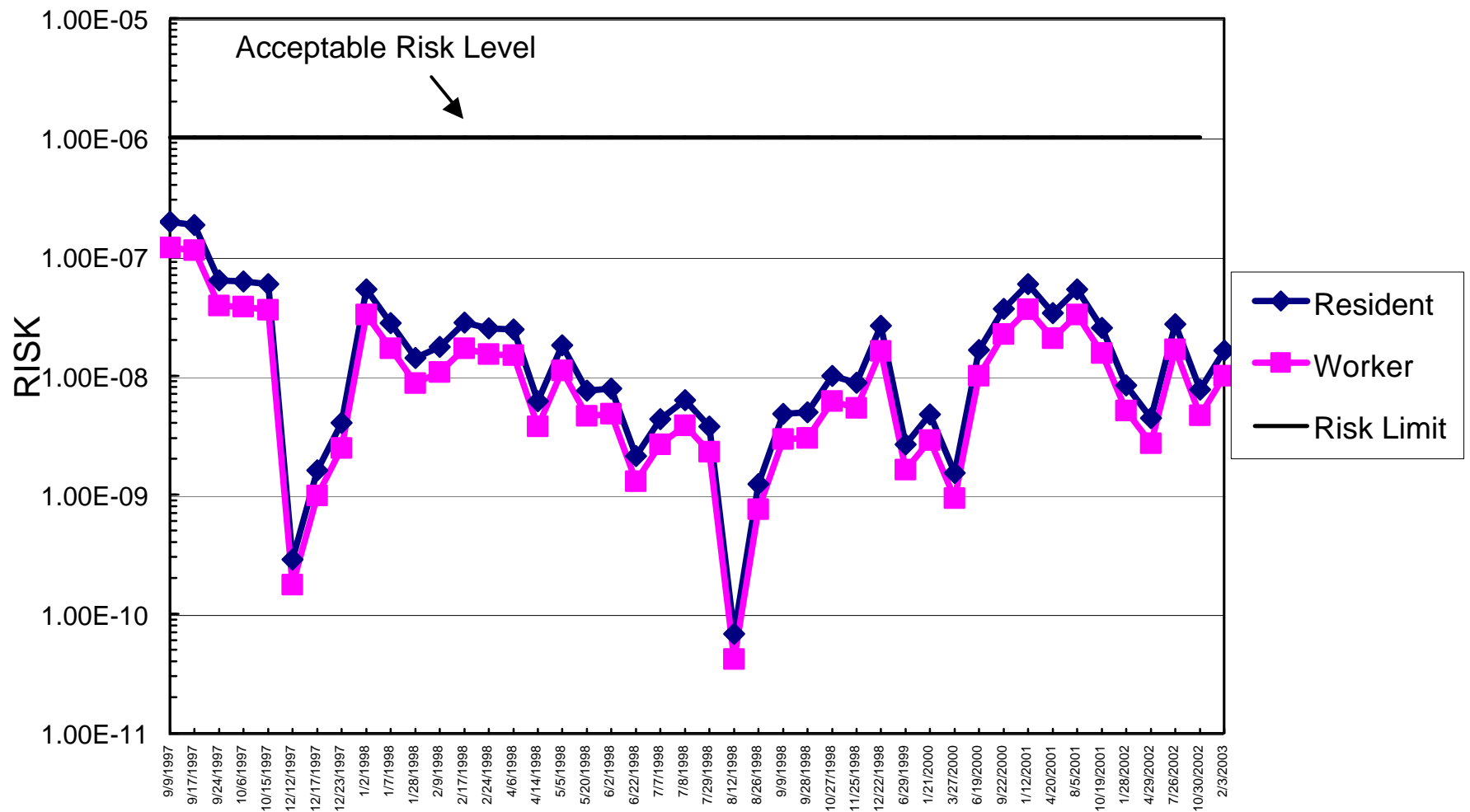
**FIGURE 1**

**FIGURE 2 - HUMAN HEALTH RISK**  
**LOCKHEED B-1 VES**  
**SCAQMD RULE 1401 CHEMICALS**  
**HYPOTHETICAL 70 YEAR LIFETIME**



**FIGURE 2**

**FIGURE 3 - HUMAN HEALTH RISK  
LOCKHEED B-1 VES  
DURING 8.5 YEAR OPERATING PERIOD**



**FIGURE 3**



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

**180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630**

**(916) 985-1000 .FAX (916) 985-1020**

**Hours 8:00 A.M to 6:00 P.M. Pacific**

**E-mail to:samlereceiving@airtoxics.com**



# AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**WORK ORDER #: 0302089**

## Work Order Summary

<b>CLIENT:</b>	Mr. Bill Gendron Clayton Group Services 1565 MacArthur Blvd. Costa Mesa, CA 92626	<b>BILL TO:</b>	Mr. Bill Gendron Clayton Group Services 1565 MacArthur Blvd. Costa Mesa, CA 92626
<b>PHONE:</b>	714-431-4100	<b>P.O. #</b>	80 98191.00.000
<b>FAX:</b>	714-825-0685	<b>PROJECT #</b>	80 98191.00.000 City of Burbank
<b>DATE RECEIVED:</b>	2/5/03	<b>CONTACT:</b>	Kelly Buettner
<b>DATE COMPLETED:</b>	2/19/03		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>
01A	B-1-VES-020303	Modified TO-15	10.5 "Hg
02A	Lab Blank	Modified TO-15	NA
03A	CCV	Modified TO-15	NA
04A	LCS	Modified TO-15	NA

CERTIFIED BY:

Laboratory Director

DATE: 02/19/03

Certification numbers: AR DEQ, CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004  
NY NELAP - 11291, UT NELAP - 9166389892

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,  
Accreditation number: E87680, Effective date: 07/01/02, Expiration date: 06/30/03

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630  
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE**  
**Modified TO-15**  
**Clayton Environmental**  
**Workorder# 0302089**

One 6 Liter Summa Canister sample was received on February 05, 2003. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 0.5 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis. See the data sheets for the reporting limits for each compound.

Method modifications taken to run these samples include:

<i>Requirement</i>	<i>TO-15</i>	<i>ATL Modifications</i>
BFB acceptance criteria	CLP protocol	SW-846 protocol
Concentration of IS spike	10 ppbv	25 ppbv when 0.5/2.0 ppbv is used for the reporting limit
Dilutions for initial calibration	Dynamic dilutions or static using canisters	Syringe dilutions
IS recoveries	Within 40% of mean over ICAL for blanks, and w/in 40% of daily CCV for samples.	Within 40% of CCV recoveries for blank and samples.
Daily CCV	30% Difference	30% Difference with two allowed out up to 40%.
Primary ions for Quantification	Freon 114: 85, Carbon Tetrachloride: 117, Trichloroethene: 130, Ethyl Benzene, m,p- and o-Xylene: 91	Freon 114: 135, Carbon Tetrachloride: 119, Trichloroethene: 95, Ethyl Benzene, m,p- and o-Xylene: 106

**Receiving Notes**

There were no receiving discrepancies.

**Analytical Notes**

There were no analytical discrepancies.

All samples were received with a Chain of Custody that specified Method TO-14. QA/QC and technical parameters were in compliance with Compendium Method TO-15 for all samples included in this report.

**Definition of Data Qualifying Flags**

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated Peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

# AIR TOXICS LTD.

SAMPLE NAME: B-1-VES-020303

ID#: 0302089-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	s020810	Date of Collection: 2/3/03
Dil. Factor:	2.06	Date of Analysis: 2/8/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	1.0	5.2	18	88
Freon 114	1.0	7.3	Not Detected	Not Detected
Chloromethane	1.0	2.2	Not Detected	Not Detected
Vinyl Chloride	1.0	2.7	Not Detected	Not Detected
Bromomethane	1.0	4.1	Not Detected	Not Detected
Chloroethane	1.0	2.8	Not Detected	Not Detected
Freon 11	1.0	5.9	1.0	5.9
1,1-Dichloroethene	1.0	4.2	8.7	35
Freon 113	1.0	8.0	11	85
Methylene Chloride	1.0	3.6	Not Detected	Not Detected
1,1-Dichloroethane	1.0	4.2	Not Detected	Not Detected
cis-1,2-Dichloroethene	1.0	4.2	1.8	7.4
Chloroform	1.0	5.1	2.0	9.7
1,1,1-Trichloroethane	1.0	5.7	3.0	17
Carbon Tetrachloride	1.0	6.6	Not Detected	Not Detected
Benzene	1.0	3.3	Not Detected	Not Detected
1,2-Dichloroethane	1.0	4.2	Not Detected	Not Detected
Trichloroethene	1.0	5.6	410	2200
1,2-Dichloropropane	1.0	4.8	Not Detected	Not Detected
cis-1,3-Dichloropropene	1.0	4.8	Not Detected	Not Detected
Toluene	1.0	3.9	Not Detected	Not Detected
trans-1,3-Dichloropropene	1.0	4.8	Not Detected	Not Detected
1,1,2-Trichloroethane	1.0	5.7	Not Detected	Not Detected
Tetrachloroethene	1.0	7.1	250	1700
1,2-Dibromoethane (EDB)	1.0	8.0	Not Detected	Not Detected
Chlorobenzene	1.0	4.8	Not Detected	Not Detected
Ethyl Benzene	1.0	4.5	Not Detected	Not Detected
m,p-Xylene	1.0	4.5	Not Detected	Not Detected
o-Xylene	1.0	4.5	Not Detected	Not Detected
Styrene	1.0	4.4	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	1.0	7.2	Not Detected	Not Detected
1,3,5-Trimethylbenzene	1.0	5.1	Not Detected	Not Detected
1,2,4-Trimethylbenzene	1.0	5.1	Not Detected	Not Detected
1,3-Dichlorobenzene	1.0	6.3	Not Detected	Not Detected
1,4-Dichlorobenzene	1.0	6.3	Not Detected	Not Detected
alpha-Chlorotoluene	1.0	5.4	Not Detected	Not Detected
1,2-Dichlorobenzene	1.0	6.3	Not Detected	Not Detected
1,2,4-Trichlorobenzene	4.1	31	Not Detected	Not Detected
Hexachlorobutadiene	4.1	45	Not Detected	Not Detected
Propylene	4.1	7.2	Not Detected	Not Detected
1,3-Butadiene	4.1	9.3	Not Detected	Not Detected
Acetone	4.1	9.9	Not Detected	Not Detected

# AIR TOXICS LTD.

SAMPLE NAME: B-1-VES-020303

ID#: 0302089-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	s020810	Date of Collection: 2/3/03
Dil. Factor:	2.06	Date of Analysis: 2/8/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Carbon Disulfide	4.1	13	Not Detected	Not Detected
2-Propanol	4.1	10	Not Detected	Not Detected
trans-1,2-Dichloroethene	4.1	17	Not Detected	Not Detected
Vinyl Acetate	4.1	15	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.1	12	Not Detected	Not Detected
Hexane	4.1	15	Not Detected	Not Detected
Tetrahydrofuran	4.1	12	Not Detected	Not Detected
Cyclohexane	4.1	14	Not Detected	Not Detected
1,4-Dioxane	4.1	15	Not Detected	Not Detected
Bromodichloromethane	4.1	28	Not Detected	Not Detected
4-Methyl-2-pentanone	4.1	17	Not Detected	Not Detected
2-Hexanone	4.1	17	Not Detected	Not Detected
Dibromochloromethane	4.1	36	Not Detected	Not Detected
Bromoform	4.1	43	Not Detected	Not Detected
4-Ethyltoluene	4.1	20	Not Detected	Not Detected
Ethanol	4.1	7.9	Not Detected	Not Detected
Methyl tert-Butyl Ether	4.1	15	Not Detected	Not Detected
Heptane	4.1	17	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	91	70-130

# AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0302089-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	s020804	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/8/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	0.50	2.5	Not Detected	Not Detected
Freon 114	0.50	3.6	Not Detected	Not Detected
Chloromethane	0.50	1.0	Not Detected	Not Detected
Vinyl Chloride	0.50	1.3	Not Detected	Not Detected
Bromomethane	0.50	2.0	Not Detected	Not Detected
Chloroethane	0.50	1.3	Not Detected	Not Detected
Freon 11	0.50	2.8	Not Detected	Not Detected
1,1-Dichloroethene	0.50	2.0	Not Detected	Not Detected
Freon 113	0.50	3.9	Not Detected	Not Detected
Methylene Chloride	0.50	1.8	Not Detected	Not Detected
1,1-Dichloroethane	0.50	2.0	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.50	2.0	Not Detected	Not Detected
Chloroform	0.50	2.5	Not Detected	Not Detected
1,1,1-Trichloroethane	0.50	2.8	Not Detected	Not Detected
Carbon Tetrachloride	0.50	3.2	Not Detected	Not Detected
Benzene	0.50	1.6	Not Detected	Not Detected
1,2-Dichloroethane	0.50	2.0	Not Detected	Not Detected
Trichloroethene	0.50	2.7	Not Detected	Not Detected
1,2-Dichloropropane	0.50	2.3	Not Detected	Not Detected
cis-1,3-Dichloropropene	0.50	2.3	Not Detected	Not Detected
Toluene	0.50	1.9	Not Detected	Not Detected
trans-1,3-Dichloropropene	0.50	2.3	Not Detected	Not Detected
1,1,2-Trichloroethane	0.50	2.8	Not Detected	Not Detected
Tetrachloroethene	0.50	3.4	Not Detected	Not Detected
1,2-Dibromoethane (EDB)	0.50	3.9	Not Detected	Not Detected
Chlorobenzene	0.50	2.3	Not Detected	Not Detected
Ethyl Benzene	0.50	2.2	Not Detected	Not Detected
m,p-Xylene	0.50	2.2	Not Detected	Not Detected
o-Xylene	0.50	2.2	Not Detected	Not Detected
Styrene	0.50	2.2	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	0.50	3.5	Not Detected	Not Detected
1,3,5-Trimethylbenzene	0.50	2.5	Not Detected	Not Detected
1,2,4-Trimethylbenzene	0.50	2.5	Not Detected	Not Detected
1,3-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected
1,4-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected
alpha-Chlorotoluene	0.50	2.6	Not Detected	Not Detected
1,2-Dichlorobenzene	0.50	3.0	Not Detected	Not Detected
1,2,4-Trichlorobenzene	2.0	15	Not Detected	Not Detected
Hexachlorobutadiene	2.0	22	Not Detected	Not Detected
Propylene	2.0	3.5	Not Detected	Not Detected
1,3-Butadiene	2.0	4.5	Not Detected	Not Detected
Acetone	2.0	4.8	Not Detected	Not Detected

# AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0302089-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	s020804	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/8/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Carbon Disulfide	2.0	6.3	Not Detected	Not Detected
2-Propanol	2.0	5.0	Not Detected	Not Detected
trans-1,2-Dichloroethene	2.0	8.0	Not Detected	Not Detected
Vinyl Acetate	2.0	7.2	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	6.0	Not Detected	Not Detected
Hexane	2.0	7.2	Not Detected	Not Detected
Tetrahydrofuran	2.0	6.0	Not Detected	Not Detected
Cyclohexane	2.0	7.0	Not Detected	Not Detected
1,4-Dioxane	2.0	7.3	Not Detected	Not Detected
Bromodichloromethane	2.0	14	Not Detected	Not Detected
4-Methyl-2-pentanone	2.0	8.3	Not Detected	Not Detected
2-Hexanone	2.0	8.3	Not Detected	Not Detected
Dibromochloromethane	2.0	17	Not Detected	Not Detected
Bromoform	2.0	21	Not Detected	Not Detected
4-Ethyltoluene	2.0	10	Not Detected	Not Detected
Ethanol	2.0	3.8	Not Detected	Not Detected
Methyl tert-Butyl Ether	2.0	7.3	Not Detected	Not Detected
Heptane	2.0	8.3	Not Detected	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	90	70-130
4-Bromofluorobenzene	93	70-130

# AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0302089-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	s020802	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/8/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	%Recovery
Freon 12	0.50	2.5	102
Freon 114	0.50	3.6	102
Chloromethane	0.50	1.0	98
Vinyl Chloride	0.50	1.3	92
Bromomethane	0.50	2.0	87
Chloroethane	0.50	1.3	84
Freon 11	0.50	2.8	100
1,1-Dichloroethene	0.50	2.0	96
Freon 113	0.50	3.9	92
Methylene Chloride	0.50	1.8	87
1,1-Dichloroethane	0.50	2.0	98
cis-1,2-Dichloroethene	0.50	2.0	100
Chloroform	0.50	2.5	102
1,1,1-Trichloroethane	0.50	2.8	101
Carbon Tetrachloride	0.50	3.2	102
Benzene	0.50	1.6	97
1,2-Dichloroethane	0.50	2.0	97
Trichloroethene	0.50	2.7	96
1,2-Dichloropropane	0.50	2.3	94
cis-1,3-Dichloropropene	0.50	2.3	96
Toluene	0.50	1.9	98
trans-1,3-Dichloropropene	0.50	2.3	96
1,1,2-Trichloroethane	0.50	2.8	95
Tetrachloroethene	0.50	3.4	101
1,2-Dibromoethane (EDB)	0.50	3.9	98
Chlorobenzene	0.50	2.3	98
Ethyl Benzene	0.50	2.2	93
m,p-Xylene	0.50	2.2	91
o-Xylene	0.50	2.2	92
Styrene	0.50	2.2	87
1,1,2,2-Tetrachloroethane	0.50	3.5	96
1,3,5-Trimethylbenzene	0.50	2.5	100
1,2,4-Trimethylbenzene	0.50	2.5	93
1,3-Dichlorobenzene	0.50	3.0	88
1,4-Dichlorobenzene	0.50	3.0	86
alpha-Chlorotoluene	0.50	2.6	87
1,2-Dichlorobenzene	0.50	3.0	83
1,2,4-Trichlorobenzene	2.0	15	105
Hexachlorobutadiene	2.0	22	90
Propylene	2.0	3.5	104
1,3-Butadiene	2.0	4.5	94
Acetone	2.0	4.8	96

# AIR TOXICS LTD.

SAMPLE NAME: CCV

ID#: 0302089-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	s020802	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/8/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	%Recovery
Carbon Disulfide	2.0	6.3	90
2-Propanol	2.0	5.0	93
trans-1,2-Dichloroethene	2.0	8.0	93
Vinyl Acetate	2.0	7.2	95
2-Butanone (Methyl Ethyl Ketone)	2.0	6.0	100
Hexane	2.0	7.2	94
Tetrahydrofuran	2.0	6.0	98
Cyclohexane	2.0	7.0	100
1,4-Dioxane	2.0	7.3	94
Bromodichloromethane	2.0	14	98
4-Methyl-2-pentanone	2.0	8.3	99
2-Hexanone	2.0	8.3	94
Dibromochloromethane	2.0	17	100
Bromoform	2.0	21	104
4-Ethyltoluene	2.0	10	83
Ethanol	2.0	3.8	83
Methyl tert-Butyl Ether	2.0	7.3	94
Heptane	2.0	8.3	99

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	97	70-130

# AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0302089-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	s020803	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/8/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	%Recovery
Freon 12	0.50	2.5	117
Freon 114	0.50	3.6	120
Chloromethane	0.50	1.0	112
Vinyl Chloride	0.50	1.3	104
Bromomethane	0.50	2.0	102
Chloroethane	0.50	1.3	100
Freon 11	0.50	2.8	106
1,1-Dichloroethene	0.50	2.0	99
Freon 113	0.50	3.9	93
Methylene Chloride	0.50	1.8	90
1,1-Dichloroethane	0.50	2.0	96
cis-1,2-Dichloroethene	0.50	2.0	105
Chloroform	0.50	2.5	102
1,1,1-Trichloroethane	0.50	2.8	98
Carbon Tetrachloride	0.50	3.2	108
Benzene	0.50	1.6	106
1,2-Dichloroethane	0.50	2.0	103
Trichloroethene	0.50	2.7	98
1,2-Dichloropropane	0.50	2.3	97
cis-1,3-Dichloropropene	0.50	2.3	90
Toluene	0.50	1.9	101
trans-1,3-Dichloropropene	0.50	2.3	89
1,1,2-Trichloroethane	0.50	2.8	105
Tetrachloroethene	0.50	3.4	106
1,2-Dibromoethane (EDB)	0.50	3.9	96
Chlorobenzene	0.50	2.3	99
Ethyl Benzene	0.50	2.2	100
m,p-Xylene	0.50	2.2	97
o-Xylene	0.50	2.2	97
Styrene	0.50	2.2	80
1,1,2,2-Tetrachloroethane	0.50	3.5	100
1,3,5-Trimethylbenzene	0.50	2.5	91
1,2,4-Trimethylbenzene	0.50	2.5	88
1,3-Dichlorobenzene	0.50	3.0	88
1,4-Dichlorobenzene	0.50	3.0	80
alpha-Chlorotoluene	0.50	2.6	73
1,2-Dichlorobenzene	0.50	3.0	83
1,2,4-Trichlorobenzene	2.0	15	98
Hexachlorobutadiene	2.0	22	92
Propylene	2.0	3.5	93
1,3-Butadiene	2.0	4.5	78
Acetone	2.0	4.8	77

# AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0302089-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	s020803	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/8/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	%Recovery
Carbon Disulfide	2.0	6.3	74
2-Propanol	2.0	5.0	78
trans-1,2-Dichloroethene	2.0	8.0	82
Vinyl Acetate	2.0	7.2	75
2-Butanone (Methyl Ethyl Ketone)	2.0	6.0	80
Hexane	2.0	7.2	74
Tetrahydrofuran	2.0	6.0	80
Cyclohexane	2.0	7.0	79
1,4-Dioxane	2.0	7.3	84
Bromodichloromethane	2.0	14	73
4-Methyl-2-pentanone	2.0	8.3	78
2-Hexanone	2.0	8.3	78
Dibromochloromethane	2.0	17	82
Bromoform	2.0	21	72
4-Ethyltoluene	2.0	10	92
Ethanol	2.0	3.8	69
Methyl tert-Butyl Ether	2.0	7.3	75
Heptane	2.0	8.3	71

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	120	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	91	70-130